

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007036**Date Inspected:** 13-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed ZPMC welder Song Yin Shu ID 059421, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions, with ZPMC Weld Procedure Specification (WPS) WPS-345-FCAW-2G (2F)-Repair-1 to weld repairs to the copes in the T=35 mm I-Ribs at the U-Rib ends on Deck Plate 1AW-DP545-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 287 amps, 30.3 volts with a travel speed of 505 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welding personnel performing heat straightening operations to reduce weld induced distortion from welding the T=35 mm thick I-Ribs to Deck Plate 1AW-DP540-001 at Complete Joint Penetration (CJP) Weld Joint (WJ) Numbers 009, 011 and 013. 1AW-DP540-001 is placed upside down with heat being applied directly to the welds on Deck Plate 1AW-DP540-001. The QA Inspector randomly observed that jacks (passive) were in place between the I-Ribs, but no counter weights. This work was being performed in accordance with ZPMC Heat Straightening Request (HSR), HSR (B)-257 Rev. 0.

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The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Wang Wei, utilizing the Magnetic Particle Testing (MT) Method, to examine an excavation in WJ 013 attaching a T=35 mm I-Rib to the base plate on Deck Plate 1AW-DP565-001, per ZPMC Critical Weld Repair (CWR) B-CWR317. There appeared to still be an indication in the excavation and Mr. Wang marked up the affected location for additional grinding.

The QA Inspector randomly observed ZPMC welder Song Yin Shu ID 059421, utilizing the FCAW Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions, with ZPMC WPS WPS-345-FCAW-2G (2F)-Repair-1 to weld repairs to the copes in the T=35 mm I-Ribs at the U-Rib ends on Deck Plate 1AE-DP580-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 1 ZPMC helper utilizing a pencil grinder to blend the copes after weld repairs, in the T=35 mm I-Ribs at the U-Rib ends on Deck Plate 1AW-DP565-001.

The QA Inspector randomly observed 1 ZPMC helper utilizing a pencil grinder to blend the copes after weld repairs, in the T=35 mm I-Ribs at the U-Rib ends on Deck Plate 1AE-DP580-001.

The QA Inspector randomly observed 1 ZPMC helper utilizing a pencil grinder to blend the copes after weld repairs, in the T=35 mm I-Ribs at the U-Rib ends on Deck Plate 1AW-DP575-001.

The QA Inspector randomly observed 3 ZPMC helpers utilizing pencil grinders to shape the copes after initial torch cutting, in the butt joints between the U-Ribs and the T=35 mm I-Ribs at on Deck Plate 1AW-DP550-001.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer
